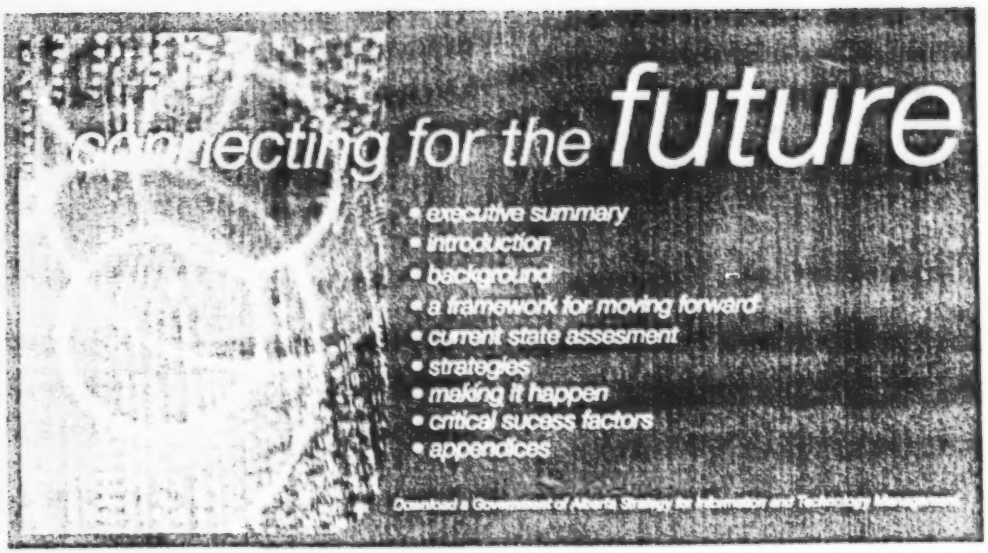
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executive summary

"We have to make sure Albertans and their government are ready for the next century."

Premier Ralph Klein
May 25, 1999

Technology is changing the way people work, the way they access information, the way services and products are delivered, and the way business is done. At the same time, technology itself is changing rapidly. Investments in information technology have to be carefully planned and considered to maximize benefits and minimize the risks of the investment. In a broader sense, we also know that economies across Canada and around the world are increasingly being driven by knowledge and the ability to use ideas, information and technology to drive decisions and develop new markets, products and services. Quite simply, we are in an information age, an age where ideas and knowledge are the keys to success.

The Alberta Government recognizes these realities. The province's new economic development strategy – *Get Ready Alberta* – focuses on the challenges of a highly competitive global marketplace where knowledge, skills and innovation are vitally important to every sector of our economy. The strategy outlines a vision where Alberta will be a world leader in innovation, research, development and commercialization of new ideas.

Business and industry, public sector organizations, and individual Albertans are taking steps to keep pace with a growing knowledge-based economy. Albertans understand that the only sustainable advantage in today's economy comes from what you know and how fast you can put it to use. The provincial government also has a responsibility to look within its organization and take deliberate action to expand its use of information, knowledge and technology to improve the way it does business. Government has a clear opportunity to provide leadership, develop the best approaches to maximize the potential of information technology, prepare its employees with leading edge skills and abilities, and use technology in the most effective ways to improve services to Albertans.

This strategic direction is intended to do just that – to set the direction, to outline specific strategies and actions, to ensure that government and all Albertans get the most benefit from their investment in information technology, and to make the Government of Alberta a leader in innovation and electronic delivery of services to Albertans.

today's challenges

An assessment of information and technology management across government today shows several gaps and problems to be addressed.

- Recent work on developing a Cost-Benefit Management Framework provides guidance to ministries in preparing business cases for new investments in information technology. Aside from that framework, there is a need for an overall strategy to guide individual decisions by ministries on investments in information technology. Without this, individual ministries prepare their own information and technology management (ITM) plans based on their unique needs, however, there is no effective process for taking an across-government view, setting priorities for investment, and ensuring that the broader interests of government are addressed.
- The diversity of ITM solutions in different ministries is a significant barrier to sharing information and services across ministries.
- The lack of standards for technologies makes it very difficult to improve and expand connections between information systems in different ministries.
- There is duplication in management, collection and use of information across ministries. This increases costs and is an obstacle to providing integrated and customer-focused services.
- In recent years, significant investments in ITM have been made but the full value of the investments has not always been achieved.
- The government's current telecommunications infrastructure is not sufficient to handle the growing needs of health, learning, and other sectors in government. Current spending by government on ITM is about 1.5% of revenue, well below the industry average of approximately 3.0%. Expanded investments in ITM will be needed to keep pace with growing needs. An overall strategy is needed to build on the Cost-Benefit Management Framework and to ensure that investments are based on solid business cases and provide the most effective solutions on a government-wide basis.
- While about 83% of ITM spending goes to purchase goods and services from the private sector, there is no corporate strategy for use of private sector resources to ensure that government is receiving the maximum value. Added value in the form of shared risk and shared rewards or expanding private sector innovation and investment has not been achieved in many cases.

- Many ministries are moving ahead with new ways of delivering services and information to Albertans using electronic means. However, these initiatives are specific to each ministry, sufficient and consistent standards are not in place, and there is little coordination across government. As more information and services are delivered electronically, legislation, regulations and standards will need to be updated to ensure that services are delivered efficiently and that important concerns with privacy are addressed.

Each of these challenges points to the need for a provincial government strategy on ITM to ensure that the government capitalizes on the potential of information technology and provides clear benefits to all Albertans.

key features of the new strategy

"In order to strengthen the Alberta Advantage and compete in the global marketplace, revitalized corporate strategies for ITM must be embraced by the Government of Alberta."

Robb Stoddard, CIO
Government of Alberta

The new strategy includes the following key features:

- The Office of the Chief Information Officer (CIO) will provide leadership in creating and maintaining a government-wide ITM framework rather than an individual ministry approach.
- Government will adopt a corporate approach to direct and manage its investment in ITM.
- Government will continue to expand its investment in ITM based on solid business cases.
- Ministries will continue to be responsible and accountable for developing business cases to support specific ITM initiatives, using ITM to deliver programs and services to Albertans, achieving their business plan objectives, and participating in cross-government initiatives.
- Investments in ITM will be driven by government priorities. That includes the following:

Expanding the focus on customers

Focusing on the customers means changing the way services are delivered to include more choice, remote access, consistency and ease of use, low cost, and expanded use of electronic means (e.g. one-window access) with appropriate security measures in place.

Conducting business in new and better ways

The business of government can be conducted in new and better ways by taking advantage of electronic service delivery, shared solutions, partnerships, interoperability with other agencies, private sector delivery, evolving technologies, and creative funding solutions.

Basing investments on sound business cases

ITM investment and management decisions must be based on comprehensive business cases and evaluation. An ongoing process will be in place for the life of an investment to ensure the initiative supports government goals and objectives, supports the needs of our customers, makes effective use of available resources, anticipates and manages business risks, and measures and achieves desired business outcomes.

Improving the management and use of information

Information and knowledge are strategic resources for government, for the public and private sectors, and for individual Albertans. Frameworks will be in place to ensure there is a clear understanding of what information should be collected and how, the use and sharing of information, accountability, standardization and better use of information to guide decisions.

Facilitating economic development

Alberta is well poised to take advantage of opportunities in a knowledge-based economy. Strategic investments by government, in partnership with the private sector, in ITM infrastructure and electronic delivery of services can provide the foundation for connecting Albertans, government, the public sector, and private sector organizations to the global marketplace.

With these priorities in mind, the vision for the new strategy is as follows:

The Government of Alberta will be a model user in the application of information, knowledge and technology.

By taking steps to achieve this vision, government can provide more services to Albertans through electronic means, deliver services in new and better ways, and achieve its business plan goals.

taking action on eight strategies

As part of the overall direction, action will be taken on eight specific strategies:

Strategy 1. *Strengthen the governance and accountability framework*

A government-wide approach will be taken to manage existing and proposed ITM investments. This approach will be supported by a corporate framework of governance and accountability.

Strategy 2. *Invest in our people*

Government will define core competencies and skills and provide training to assist employees in assuming accountability, managing ITM investments, enhancing the value of information, and providing services to Albertans.

Strategy 3. *Achieve results through effective investment management*

A corporate ITM investment framework will be established to ensure that:

- Investments support government goals and objectives and the needs of customers;
- Investments make the most effective use of available resources;
- The business risks of investments are understood and managed; and
- Desired outcomes are measured and achieved throughout the life of the investment.

Strategy 4. *Adopt standards and best practices across government*

Industry-based ITM standards and best practices will be implemented and used across government to achieve enhanced cost effectiveness, integration and connectivity within and outside government.

Strategy 5. *Expand access to information and services*

Albertans, businesses and public sector organizations will be able to easily access government services and information anytime, anywhere, using Internet technologies. All government services and information that can reasonably be accessible using these technologies will be offered on-line.

Strategy 6. *Purchasing and partnering for maximum value*

Government's corporate purchasing power and innovative partnership practices needs to be established to provide maximum value to government and contribute to economic and business growth in Alberta.

Strategy 7. *Take advantage of the strategic value of information*

Information and knowledge will be viewed as strategic assets that are carefully developed and shared to support government decisions.

Strategy 8. *Invest in corporate ITM infrastructure*

Investment in ITM infrastructure across government will support electronic delivery of services to Albertans. It will lead to greater consistency, interoperability, and economy within government, as well as improved communications across all levels of government and with public and private sector organizations.

achieving benefits

In addition to positioning the province as a model user in innovation and the use of information technology, the overall strategy will provide specific benefits.

- People will have easier and more streamlined access to services and information. People will be able to choose how to access information and it will be available anytime, anywhere.
- Services and information will be integrated and may be delivered through a single point of electronic access.
- Albertans will have access to better information to guide their own decisions about health, education, and other aspects of their business and personal lives.
- Albertans outside the major centres will have better electronic access to government services and information.
- Duplication will be reduced. Information will be collected and shared appropriately among ministries, with careful privacy protection in place.
- Within government, services will be delivered through a shared services model.
- Private sector firms doing business with government will benefit from improved access to government business and streamlined transactions. Alberta will continue to be seen as an excellent place to do business.
- Public sector organizations in health, education, municipalities and others will benefit from better access to timely information to guide their decisions and policies.
- Better information will be available to guide decisions within government.
- Government's investments in ITM will be leveraged effectively through partnerships with the private sector and other organizations.

moving forward

Action on this overall strategy has begun. Within two to three years the necessary pieces will be in place. Key targets for specific components of the strategy are as follows:

- **By late 2000** – a framework will be in place to direct the implementation of electronic service delivery, electronic commerce and enhanced information sharing across government ministries.
- **By late 2000** – a corporate accountability framework and an investment framework will be in place to set priorities and guide investment decisions.
- **By early 2002** – ITM standards, best practices and innovative purchasing and partnering practices will be implemented across government.
- **By 2003** – high-speed access to the Internet will be available province-wide and a significant amount of government business will be conducted electronically.
- **By 2003** – government's investment in emerging technologies and infrastructure will enhance Alberta's ability to compete in the global marketplace and achieve the goal of being a world leader in innovation.

To achieve the vision and move forward, government will invest in its ITM infrastructure, there will be effective leadership by the Office of the CIO, as well as buy-in and participation by all ministries. We will pursue partnerships with the private sector, and there is a commitment to deliver services in new and better ways.

With these success factors in place, the Alberta Government can and will position itself as a model user in innovation and the delivery of quality electronic services to Albertans. We will achieve the maximum benefit from our investments in ITM, support the public sector in its use of information and information technology, and provide expanded opportunities for the private sector to partner with government in becoming a world leader in innovation and ideas.

introduction

As the new millennium unfolds, societies will evolve at an unprecedented rate – driven largely by the influence of globalization, changing demographics and the rapid advancement and deployment of all forms of technology. The impact of technology advancement will transform and affect all corners of our society including individuals, the business community, our economy and most certainly, our government.

These dynamics are compelling the Government of Alberta to act on an innovative vision that recognizes new ways the government will interact with Albertans and business communities in delivering services and providing access to information. This vision reinforces the value of collaboration and integration across government programs, with stakeholder communities, with other jurisdictions of government – at federal, provincial and local levels, and with the private sector.

In 1998, the Alberta Science and Research Authority tabled a report containing broad recommendations for an Information and Communications Technology (ICT) strategy for Alberta. This report, coupled with the new economic strategy for Alberta released by the Minister of Economic Development in February, 2000[1], provides a framework for economic and business growth in the province. These strategies emphasize the value of growth in the ICT sector, and the benefits to Albertans and the business community of embracing and using emerging technologies to strengthen the Alberta Advantage.

The Strategic Direction for Information and Technology Management has been developed by the Office of the Chief Information Officer (CIO), Alberta Innovation and Science. It presents strategies that focus on improvement of government services to Albertans through enhanced corporate practices of investment, management and use of information and technology. It also highlights areas where government's Information and Technology Management (ITM) investment will contribute to better government and broader goals in relation to economic and business growth.

1 Get Ready Alberta - Strengthening the Alberta Advantage

background

"We need to see more teamwork and a move to more cross-government efforts. Gone are the days when government departments could afford to work independently of each other in their own silos."

Premier Ralph Klein
May 25, 1999

Technology, globalization, deregulation, and the convergence of the digital economy are changing our world. Today technology and communications are the world's fastest growing economic sectors.

The fundamentals of wealth creation are changing. Knowledge is now key to creating wealth. A new view of well being in the knowledge economy is emerging which recognizes the growing complexity of work, products, and organizations. It concludes that the only sustainable advantage comes from what information you have access to and how fast you can put it to use. The challenge for the Government of Alberta is to be at the forefront of innovation in the discovery, application and improvement of the knowledge we create and share with Albertans.

government business priorities direct future ITM investment

In recent years, the Government of Alberta has taken many positive steps to restructure its approach to service delivery to Albertans. The changes undertaken were extensive. The government moved to divest itself of all but defined "core" programs. Ministries were reorganized to reflect related programming from a client perspective, and technology was acknowledged as an enabler to deliver programs more efficiently and effectively. The interdependencies of ministries and other levels of government were recognized, and the need for collaboration and sharing of information and solutions became a priority.

Most importantly, the focus of service delivery was redirected towards the customer. Accountability for service levels in terms of access, response and customer satisfaction became an integral part of measuring performance, and is now formally evaluated and reported.

Collectively, these changes are redirecting the way that the Government of Alberta is interacting with Albertans, the public sector, the business community, and other governments. Achieving "better government" means government will be more accessible, responsive and affordable, and able to deal effectively with new forces impacting the provincial economy.

Five primary business drivers have been identified from a government corporate perspective as the key priority elements in a new economy. The corporate ITM strategies presented in this report respond to these drivers.

Customer Focus

There is a need to move quickly to a customer focused model of program and service delivery. Choice, one-window access across departments and with other levels of government, remote access, consistency and ease of use, low cost, security, use of electronic service delivery, and customer empowerment will be key elements.

Business Conducted In New and Better Ways

Business will be conducted in new and better ways, taking advantage of electronic service delivery, shared solutions, partnerships, interoperability with other agencies, private sector partnerships, evolving technologies, and creative funding solutions.

Investments Based on Sound Business Cases

ITM investment and management decisions will be based on comprehensive business case development and evaluation. This will be an ongoing process for the life of the investment and will be designed to ensure alignment with and support of government goals and objectives, effective use of available resources, management and understanding of business risks, and measurement and achievement of desired business outcomes.

Improved Management and Use of Information

The management and use of information must be improved and its strategic value to government and Albertans must be recognized. An enhanced understanding of what and how information should be captured, constraints on use and sharing, standardization, accessibility, and accountability are required to capitalize on the value of information and create new knowledge.

Economic Development

Government's leadership in the innovative acquisition and use of emerging technologies, coupled with effective use of the private sector, will help prepare Alberta to move towards a knowledge-based economy. Investment in ITM infrastructure and delivery of services and information electronically will provide a foundation to connect government, Albertans and extended stakeholder groups to the global marketplace. These factors will contribute to economic development and strengthen the Alberta Advantage.

the changing economy – information, technology and knowledge-based

"Government and industry will work closely together to strengthen our technological infrastructure, and build an economic sector that will help this province succeed in the new global economy."

Dr. Lorne Taylor, Minister
Alberta Innovation and Science
October 21, 1999

Evolving technology has now allowed the integration of business and support functions across organizations. Enterprise-wide solutions provide a foundation for open, networked organizations. Access to and the use of information for policy and decision-making transcends business, program and support units and reaches out to Albertans and the business community.

The unprecedented advancement of Internet capabilities in recent years promises yet another change in the way government, Albertans, the public sector and the business community will interact in the future. Electronic commerce and electronic service delivery will revolutionize the way government services are delivered to Albertans and information is made accessible to enhance the knowledge base in the province. Albertans will have easy access to information and services from public access points that offer coordinated services spanning provincial, federal and local levels of government. They will have increased choice in determining how, when and where they want to access government services and information.

The capability of emerging technology is leading to creative partnerships between and amongst public and private sector organizations to more effectively plan and deliver integrated services. The experience and skills gained in these endeavours can then be used to pursue business growth within and beyond Alberta's boundaries. The benefit to Alberta of potential economic diversification and growth is significant.

While technology plays a key role in enabling change, ITM investments and strategies must be driven by the business. It will be imperative, therefore, that innovative "thinking outside of the box" and re-engineering of business processes take place to effectively direct ITM investments. Business and ITM planning must be conducted in parallel.

a framework for moving forward

vision

The Government of Alberta will be a model user in the application of information, knowledge and technology enabling it to achieve its business goals and deliver services to Albertans in new and better ways, with a focus on conducting business electronically.

In order to move government's investment in ITM forward to meet the business objectives, it is important to pursue a systematic approach to strategy development and subsequent action. The following sections provide a framework for moving forward on a corporate basis.

ITM vision

Government's ITM strategies and implementation plan must move the business goals forward in a substantive way in coming years. The vision for ITM will be pursued in the context of maintaining an open, accessible and secure infrastructure of information and technology.

This vision will enable the Government of Alberta to deliver the following benefits to Albertans:

- Albertans will have easier, more streamlined access to services and information that will allow people to choose how to access information and expand two-way communication.
- Services and information will be integrated to a greater extent and may be delivered through a single point of electronic access (e.g., One Window).
- Albertans will have better information to research and make their own decisions about their health, education and other aspects of their personal and business lives (e.g., enhanced knowledge base).
- Albertans outside of major centres will have improved access to government services and information.
- Information will be collected and shared among service delivery partners, while respecting the privacy and security of the data.
- Within government, corporate services will be delivered through a shared services model.
- Private sector firms doing business with government will benefit through improved access to government business and streamlined transactions. Alberta will be seen as an excellent place to do business.
- Better information will be readily available at the corporate level of government for planning and decision-making.
- Government will leverage its investments by effectively using and partnering with the private sector and other jurisdictions.

ITM principles

Future corporate ITM investment and strategy implementation will be based on the following key principles:

Collaboration and Integration

Collaboration and integration of ITM solutions will be enhanced across ministries, extended stakeholder groups and other jurisdictions of government, based on corporate standardization of applications and sharing of information.

Alignment to Government Business Priorities

Future ITM investments will be based on values that reflect their contribution to the achievement of government business plans, priorities and customers needs.

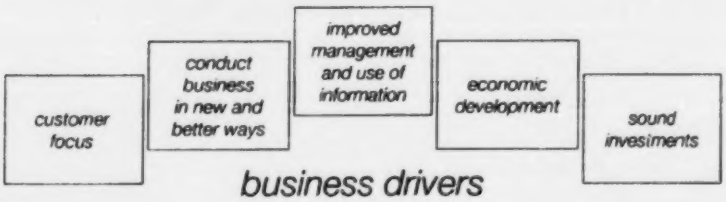
Accountability

A corporate authority and accountability framework will be established for all aspects of planning, managing and delivering ITM services.

Security and Protection of Privacy

The integrity of government's information and technology will be protected by the creation of government-wide security standards. In addition, the Freedom of Information and Protection of Privacy Act, as well as the Health Information Act, prescribes ministries' responsibilities regarding the collection, use, sharing, disclosure and distribution of personal information.

ITM strategy framework



The following model of ITM components provides the framework under which strategies have been developed to respond to the primary business drivers. Each component represents a corporate ITM focus that must be considered to move forward and ensure ongoing integrity of the overall investment.

The primary components of the model are as follows:

Governance and Accountabilities incorporates a framework of responsibility and authority to ensure that effective planning, management and delivery policies, practices and standards are established and applied consistently across government. This component will oversee the corporate investment in ITM, and measure and report on progress and outcomes.

Investment Management includes the establishment and actioning of corporate policies and practices to ensure that the right priorities are being addressed, risks are understood and managed, and value is realized in accordance with prescribed business cases.

Standards addresses the development and deployment of industry-based standards to be applied to technology and information across government. It also establishes best practices that will be applied on a government-wide basis (e.g., project management, contract management, performance management, security management etc.). These best practices could be adopted from other organizations.

Service Management and Delivery includes all aspects of sourcing for ITM services and the management of contracts, projects and performance.

Infrastructure Management provides a framework for dealing corporately with key aspects of the ITM investment that have shared usage by ministries. This includes areas such as technology and network architectures, life cycle management, business continuity management, and connectivity within and outside of government.

Information, Knowledge and Application Management provide a framework for establishing and managing corporate plans and architectures to facilitate the management and sharing of information, the integration of applications to support business service delivery, and the creation of knowledge.

current state assessment

In developing corporate strategies, it is important to understand the current state of ITM in government and assess its readiness to meet the new and evolving business needs. Strategies can then be established to address major gaps that may be obstacles to meeting these needs.

The findings of the gap analysis, comparing where ITM is today against where it needs to be to deliver the desired future functionality, are presented in Appendix A. Highlights of key areas that require corporate attention are as follows:

ITM practices

In recent years, ministries have made significant progress in aligning ITM plans to their respective business plans and priorities. As well, responsibility for shared ITM infrastructure has been established corporately by the Office of the Chief Technology Officer (CTO). This has resulted in improved delivery of services to Albertans and more effective internal administration. In several cases, it has also resulted in enhanced integration of services through collaboration with other ministries, levels of government and extended stakeholder groups.

While good progress has been made, there is a need to strengthen the corporate approach to planning and managing ITM. The lack of a corporate accountability framework for ITM has resulted in ministries taking a silo'd approach to many aspects of their investments. This has resulted in the following:

- Diverse ITM solutions pose a significant barrier to the sharing of information and integration of services across ministries;
- Non-standardized technologies pose an obstacle to enhanced connectivity within and outside of government, and improved cost effectiveness of acquisition and support; and
- Duplication in the management, collection and use of information across ministries results in increased costs and presents an obstacle to integrated and customer focused service delivery.

There is a need to clarify and better establish roles and responsibilities for the CIO Council and the Information Technology Advisory Committee. As well, in moving to strengthen the corporate governance of ITM, roles and responsibilities of the CIO, the CTO and the Alberta Corporate Service Centre need to be more clearly defined and communicated.

A corporate ITM business plan must be established and updated regularly to provide guidance to the development of ministry ITM plans and respond to the overall priorities of government. The process to develop the corporate plan must address needs for ITM policies, priorities and standards that would apply across government, and the identification and management of common opportunities.

funding and investment practices

Currently, each ministry prepares annual ITM plans based on the specific needs of their programs and services. While some coordination of plans (e.g. standard templates) is evident, there is not an effective planning or priority-setting process in place to adequately reflect the corporate interests of government. Recent developments, however, have placed increased emphasis on shared services and common systems to be delivered through the Alberta Corporate Service Centre.

There is no corporate investment strategy or process in place to ensure that ITM plans reflect the broader interests and priorities of government – and that the ITM infrastructure is able to meet evolving business needs.

Current practices make it difficult to distinguish the extent to which proposed investments are contributing to external service delivery to Albertans or supporting internal government administration. The nature of the investment, being of strategic or operational value to government, is also not clearly identifiable. Each of these factors would be of significant value to position and support ITM investments and set priorities at the corporate and ministry levels.

In 1999, the Deputy Ministers approved Cost-Benefit Management and Contract Management Frameworks for all ministries to adopt. These frameworks will guide the development of business cases for all future ITM investments.

In recent years, significant investments have been made in ITM where the full value of these investments has yet to be achieved. The IMAGIS[2] project is perhaps the most significant corporate initiative undertaken, however, its potential as a management "tool" is yet to be realized. The investment in this application is to be maximized through a re-examination of business processes, the training and development of line staff to take full advantage of the system as part of their management responsibilities, and the establishment of best practices to standardize common and routine functions.

[2] IMAGIS is a suite of corporate financial and human resource systems that have been deployed across government

infrastructure investment

In recent years, the rapid growth in demands for the transmission of data within and outside of government has placed a significant strain on the existing telecommunication infrastructure. The current range, reach and capacity (e.g., bandwidth) is not sufficient to adequately respond to the growing needs of health, learning and the business needs of other ministries. It will also not meet the increased demands resulting from the pursuit of electronic service delivery solutions by ministries.

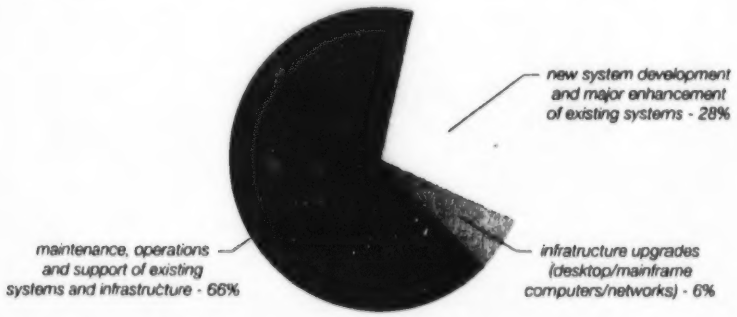
An investment in corporate infrastructure, particularly in the provincial network, will be essential to support the future business needs of government and extended stakeholders.

current spending

Current business plans reflect total spending for ITM at approximately $269 million[1]. This includes government departments and excludes boards, agencies and extended stakeholders. Government spending on ITM is approximately 1.5 per cent of the enterprise revenue, well below the industry average of approximately 3.0 per cent.

The following figure presents an overview of the corporate spending pattern in relation to the current annual expenditure of $269 million. It demonstrates that a large percentage of the investment (e.g., 72%) is being applied to support operational and basic infrastructure aspects of the investment. The remainder is targeted towards new system development and major enhancements of existing systems. Development of a corporate ITM plan would ensure that investments are aligned with and representative of government and ministry needs and priorities.

corporate spending pattern of $269 million


new system development and major enhancement of existing systems - 28%
maintenance, operations and support of existing systems and infrastructure - 66%
infratructure upgrades (desktop/mainframe computers/networks) - 6%

[1] Provided by Alberta Innovation and Science

sourcing of services

On a government-wide basis, approximately 83 percent of ITM spending goes to the purchase of goods and services from the private sector in various ways (e.g. purchase of hardware / software, outsourcing, projects and technical support staff). The current internal government ITM staff complement is approximately 500 positions – down from 1295 positions in 1992/93.[4] The majority of these people are now employed in the private sector.

There is no corporate strategy, however, for the use of private sector resources that would contribute to maximum value being received across government. Individual ministries have established agreements with private sector under varying terms and conditions, although most are based on effective performance measures (e.g., service level agreements).

Some of the current agreements have a strategic element to them, but most are based solely on the fundamental delivery of ITM services. The realization of added value has not been achieved to any great extent to date (e.g., shared risk / shared reward, and private sector innovation and investment).

The majority of the outsourcing agreements have resulted in agreements being established with the larger ITM firms. The emerging technologies, however, offer the opportunity for smaller, more specialized firms to play a bigger role in future outsourcing or contracting-out opportunities.

electronic service delivery (ESD)

The recent priority of government to deliver services to Albertans and provide access to information in new and better ways places a major emphasis on the implementation of electronic service delivery and electronic commerce. The following gaps are evident in moving forward in coming years:

- Most efforts to pilot and deploy electronic service delivery are ministry-based. There is no corporate framework of accountabilities, standards or practices (of business or technology) in place to ensure government-wide coordination.
- Little has been done on a corporate basis to identify services within or across ministries that would be candidates for electronic service delivery. Nor has there been consideration of how services and information might best be integrated to better serve Albertans. The One-Window initiative currently underway is the first attempt to address these issues and develop a strategy for single point of electronic access for Albertans.

[4] Provided by Alberta Innovation and Science

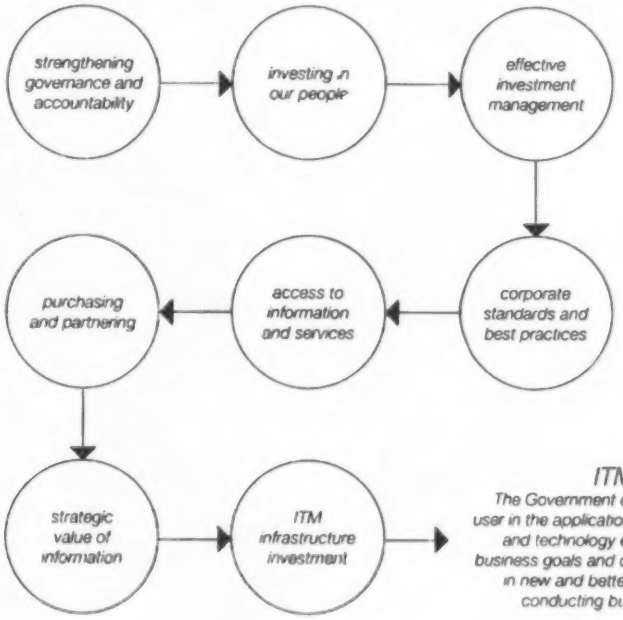
- There is no corporate strategy in place to capitalize on private sector experience and capabilities in implementing a robust and secure electronic service delivery environment for government.
- As more information and services are delivered electronically, legislation and regulations will need to be updated to ensure that adequate privacy protection is in place.
- The current network infrastructure will not support the implementation of electronic service delivery across government and to all areas of the province.

strategies

"Corporate ITM strategies are more than just a vision and direction. They represent an opportunity to introduce significant change and conduct ITM business across government in new and better ways."

Robb Stoddard, CIO
Government of Alberta

Corporate strategies respond to the business drivers that will dictate ITM direction to be pursued in the planning horizon 2000 - 2003. They also respond to gaps in the current ITM management and delivery environment that are currently in place within government. The strategies are as follows:



ITM vision

The Government of Alberta will be a model user in the application of information, knowledge and technology enabling it to achieve its business goals and deliver services to Albertans in new and better ways, with a focus on conducting business electronically.

The following sections provide a summary of each of the strategies, along with their primary linkage to the business drivers. Anticipated outcomes are also identified.

strategy 1: strengthen the governance and accountability framework

A government-wide approach will be taken for the management of existing and proposed ITM investments, supported by a corporate framework of governance and accountabilities.

The implementation of technology within government has primarily been driven by ministries. This has resulted in inefficiencies and incompatibilities in service delivery and barriers to sharing valuable information across departments. With the future emphasis on increased collaboration and integration of service delivery across ministries and beyond, there is a clear need to undertake a corporate approach to ITM across government.

Specific strategies are as follows:

A corporate accountability framework will be established to oversee government's ITM investments. It will reflect broad accountabilities as follows:

- The corporate CIO will assume responsibility for establishing, managing and reporting on corporate ITM strategies, plans, policies, practices, standards and projects that reflect the broad interests and priorities of government. This office will have stewardship authority over these areas and secure ministry input and commitment through involvement of the CTO, the Council of CIO's, represented by all ministries and the Alberta Corporate Service Centre. It will also be responsible for interfacing with industry and other external stakeholder groups in relation to corporate ITM strategies and directions;

- The corporate Office of the CTO will assume responsibility for establishing a common information and technology infrastructure (including planning and research), developing the technology architecture and standards, and managing and coordinating corporate technology initiatives and projects;

primary linkage to business drivers

- ☑ - Customer Focus
- ☑ - Business Conducted in New and Better Ways
- ☑ - Investments Based on Sound Business Cases
- ☑ - Improved Management and Use of Information
- ☑ - Economic Development

- The Alberta Corporate Service Centre will assume responsibility for planning, managing and delivering shared ITM services and common solutions across government; and
- Ministry CIO's will assume responsibility for establishing ministry ITM plans that reflect corporate and ministry business priorities and objectives; managing services provided in accordance with approved plans; providing input to and ensuring ministry compliance with corporate ITM plans, policies, practices, standards and common solutions; and, interfacing with extended stakeholder groups of the ministry.

A corporate ITM business plan, with clear statements of corporate strategic and operational directions and priorities will be developed and communicated with the intent of enabling ministries to align their plans and projects, from both a business and technical perspective.

Shared ITM services and common solutions across government will be pursued to the greatest extent possible to achieve maximum efficiency, standardization and cost effectiveness.

Corporate architecture models and standards will be established for key aspects of government's ITM investment:

- Information architecture to support sharing, access, use, security and knowledge creation;
- Business architecture to provide a common framework of policies and processes to support electronic service delivery; and
- Technology architecture to ensure standardization and integration of solutions, where appropriate, and enhance connectivity within and outside of government.

outcomes

To Government:

- Decision makers will see a more comprehensive view of proposed ITM investments, developed within the context of the corporate priorities.
- Ministries will be better able to contribute to and align their ITM investments to the broader government strategies.
- The larger investment base will provide greater opportunities and synergies between ministries to integrate and improve service delivery.

To Albertans:

- Services to Albertans will be improved due to enhanced coordination across government.

To the Business Community:

- Services to Alberta businesses will be improved due to enhanced coordination across government.
- Investments made and managed on a corporate basis will provide more opportunity to effectively utilize the capabilities of the private sector.

To the Economy:

- The purchasing power of government, on a corporate basis, can be leveraged to provide benefits to the economy of Alberta, as well as government.

strategy 2:
invest in our people

Government will invest in its people by defining core competencies and skills to allow employees to fully assume accountability for managing the ITM investment and enhance the value of information and services to Albertans.

New skills will be required to manage emerging technologies and assume appropriate levels of accountability for services and investments. There is a need to establish a clear understanding of core competencies that are required to manage the business of government, especially with the evolving ITM environment. Effective recruitment, training and retention practices must be established to support government's growing investment and reliance on all forms of technology.

Specific strategies related to core competencies and skills are as follows:

Centres of Expertise will be available, from either internal or external sources, to provide corporate leadership and consulting support for core competency areas including:

- Value and investment management;
- Contract and relationship management;
- Performance management;
- Project management;
- Business analysis, re-engineering and resumption planning;
- Procurement management;
- Security management; and
- Architecture management (information, applications and technology).

Industry best practices will be used as the basis for developing core competencies and skills.

Innovative training programs will be established through private sector partnerships and made available to support training in emerging technologies and in new ways of doing business using technology.

primary linkage to business drivers

- ☑ - Customer Focus
- ☑ - Business Conducted in New and Better Ways
- ☑ - Investments Based on Sound Business Cases
- ☑ - Improved Management and Use of Information
- ☑ - Economic Development

outcomes

To Government:

- Management of government's investment in ITM will be enhanced in all respects.

To Albertans:

- Service levels will improve based on enhanced skills of government service delivery, management and staff.

To the Business Community:

- Opportunities to develop and provide innovative training programs will be increased.

To the Economy:

- Innovative training programs and technologies developed for and used by government will be exportable to other sectors within and outside of Alberta.

strategy 3:
achieve results through effective investment management

A corporate investment management framework for ITM will be established to ensure that:

- *Investments are aligned with and support government goals and objectives and support the needs of the customer;*
- *Investments reflect the most effective use of available resources;*
- *The business risks of such investments are understood and managed; and*
- *The desired outcomes are measured and achieved throughout the anticipated life of the investment.*

Investment management will require increased attention as government moves forward in delivering more integrated services. There is a pressing need to have an effective cross government process for assessing the value of ITM investments, setting priorities that reflect corporate, as well as ministry interests, and managing risk and performance on a continuous basis.

Specific corporate investment strategies are as follows:

- A corporate investment management framework will be developed to establish priorities for ITM investment at the corporate and ministry levels of government. It will distinguish investments based on internal and external service delivery outcomes, and strategic and operational value. It will also provide the means to pursue investment in the critical ITM infrastructure.
- Key strategic performance measures related to priority business outcomes from major ITM initiatives will be corporately tracked and reported on.
- The corporate framework for investment management will be promoted, communicated and deployed through training, development and maintenance of policies, standards, guidelines and best practices, as well as reporting and sharing of experiences.
- An inventory of significant ITM assets, showing linkages to related investments, client groups, common service and operating elements, and projected needs will be created and maintained corporately.
- Major corporate ITM investment proposals will include a perspective of the overall business objectives being met, linkages with other business objectives, corporate business risk, and relationships and interdependencies with other existing and proposed initiatives and investments.

primary linkage to business drivers

- ☐ - Customer Focus
- ☐ - Business Conducted in New and Better Ways
- ☑ - Investments Based on Sound Business Cases
- ☑ - Improved Management and Use of Information
- ☐ - Economic Development

- A centre of expertise will be established for specific purposes. This centre will be used to develop, present and evaluate business case submissions for unique corporate projects involving leveraged investments, requirements for fast-tracking, involvement of multi-jurisdictions, and other higher risk situations. The standards established through the recently released Cost-Benefit (business case) and Contract Management Frameworks will guide the work of the centre of expertise in this area.
- Information and experience in all aspects of the investment management function will be made available corporately. This will include industry level knowledge about emerging technical and business trends, opportunities for system and program delivery convergence, and improved models for partnering and utilization of private sector capability.
- A Risk Assessment Model will be established corporately. Identifying and assessing project risk, identifying mitigation and contingency options, and evaluating and reporting status on an ongoing basis will be a mandatory requirement for corporate ITM investments. Risk Tolerance standards will be defined to assist in understanding and comparing alternative investment opportunities from a risk perspective.

outcomes

To Government:

- Decision-makers will be able to evaluate proposed investments within the context of the total government-wide ITM investment portfolio. There will be more complete and better correlation of investments amongst and between programs.
- ITM investments of ministries will be aligned to the broader government strategies.
- The large investment base will provide greater opportunities and synergies between ministries to merge and improve service delivery.
- Overall value and return on corporate ITM investment will be maximized.
- The business risks of ITM investment will be understood and managed.

To Albertans:

- Albertans will see improved coordination between service delivery programs. Services will be better integrated and more uniform in terms of presentation, use and process.

To the Business Community:

- Alberta businesses will see improved coordination between service delivery programs. Service will be better integrated and more uniform in terms of presentation, use and process.
- The private sector will assume a larger share of the primary risks associated with the development and use of emerging technologies.
- There will be an improved opportunity for the private sector to provide services and support on a cross-departmental basis.

To the Economy:

- The larger, more integrated critical mass of investments will provide more opportunity to effectively utilize the capabilities of the private sector, and in so doing will strengthen the province's economic base.

strategy 4:
adopt standards and best practices across government

Industry-based ITM standards and best practices will be implemented corporately and deployed across government to achieve enhanced cost effectiveness (of acquisition and support), integration and connectivity within and outside of government.

Absence of common standards across government has resulted in system incompatibilities and resource duplication. It has also limited the power and value of corporate purchasing for ITM products and services. With the growing need for increased connectivity and service integration, there is a need to establish corporate ITM standards and enhanced purchasing practices that address the needs of the Alberta Government.

Specific strategies related to corporate standardization are as follows:

A corporate Standards Management Program based on industry standards will be established. It will define the scope of corporate standards, policies, and accountabilities for standards development, deployment and ongoing maintenance.

The corporate ITM infrastructure will be stabilized and standardized in the following components:

- Email, directory and security services;
- Desktop technology hardware, software and support; and
- Local and wide area network infrastructure.

A corporate ITM policy and standards framework will be established.

Corporate technology life cycle management (refresh) policies and practices will be established for ITM infrastructure components to ensure currency with industry advancement and effective asset management.

Corporate definitions for common data elements (e.g., persons, organizations, locations, assets, and documents) and common data stores and data mining tools will be developed and coordinated corporately where possible.

primary linkage to business drivers

- ☑ - Customer Focus
- ☑ - Business Conducted in New and Better Ways
- ☑ - Investments Based on Sound Business Cases
- ☑ - Improved Management and Use of Information
- ☐ - Economic Development

Corporate standards will be established for all business and technology aspects of the implementation of electronic service delivery across government including:

- Design (including security and electronic data interchange standards);
- Development;
- Delivery; and
- Support.

Best practices related to the management and use of information and technology will be established corporately and deployed across government.

outcomes

To Government

- Services and information will be more easily integrated.
- Costs of acquisition and support will be decreased.
- Skills will be more transferable across ministries.
- Training costs will be decreased (over the longer term).
- Government will be more easily able to connect to external contact points.
- There will be increased flexibility, responsiveness and cost effectiveness in adapting to restructuring of government programs or ministries.

To Albertans:

- Services to Albertans will be more uniform in terms of presentation, use and process.
- Improved connectivity and interoperability will allow ease of access to information and services for Albertans.

To the Business Community:

- Services to Alberta businesses will be more uniform in terms of presentation, use and process.
- Improved connectivity and interoperability will allow for ease of access to information and services for Alberta businesses.
- There will be an improved opportunity for the private sector to provide services and support across departments.

To the Economy:

- The corporate purchasing power of government, based on corporate standardization, can be leveraged to provide benefit to industry and government.
- Government's deployment of industry-based standards will support the ability of Albertans and Alberta business to
- access services and information beyond Alberta.

strategy 5:
expand access to information and services

Albertans and businesses will be able to easily access government services and information anytime, anywhere, using Internet technologies. All government services and information that can reasonably be made accessible via these technologies will be offered on-line.

There is a need for a corporate framework of accountabilities, standards or practices (of business or technology) to ensure government-wide coordination in broadening access to information and services. The legislative and regulatory frameworks and current network infrastructure do not support the sharing of information and implementation of electronic access and service delivery across the province. There is also no strategy in place to capitalize on private sector experience and capabilities to implement a robust and secure electronic service delivery environment for government. There is need for a strong corporate approach to lead the development, implementation and operation of all aspects of the new environment.

Specific corporate electronic service delivery strategies are as follows:

- A corporate governing structure for the implementation of electronic service delivery will be established to champion efforts to get government on-line.
- A high-speed, high-bandwidth communication network will be made available to provide online services to Albertans and businesses – opening up significant new opportunities for connectivity, telecommuting, telemedicine, distance learning, electronic commerce, etc.
- Infrastructure and core services that can be shared across ministries for handling security, authentication, forms handling, workflow, electronic funds transfer, electronic payments, etc. will be developed to support the electronic service delivery model, with proper consideration of privacy requirements.
- Policies, processes and procedures for implementing electronic services will be developed to support a coordinated and standards-based approach.

primary linkage to business drivers

- ☑ - Customer Focus
- ☑ - Business Conducted in New and Better Ways
- ☐ - Investments Based on Sound Business Cases
- ☑ - Improved Management and Use of Information
- ☑ - Economic Development

- Legal or legislative barriers to electronic service delivery will be removed, and existing legislation within and outside of Alberta will be harmonized to provide trust in electronic service delivery.
- Collaboration and partnerships will be used to encourage communication and joint initiatives between the various levels of government, industry, businesses and Albertans to identify and implement opportunities for electronic service delivery.
- Training for business managers will be provided on how to leverage technology to re-invent government processes, and to achieve the goals of electronic service delivery.

outcomes

To Government:
- Realization of innovative government business opportunities.
- Integrated delivery of government services.
- Increased flexibility to change services.
- Reduced cost of service delivery.

To Albertans:
- Access to government services and information anytime and anywhere.
- Alignment of government services to customer needs.
- Customers do not waste time dealing with multiple departments.

To the Business Community:
- Alberta will be viewed as an excellent place to do business.
- Opportunities for business participation in government ITM will expand.
- Improved access to government services and information, and opportunities to sell services.
- Reduced cost of doing business with the government.

To the Economy:
- Development of business and the community for the betterment of Alberta.
- Increased opportunities will lead to increased jobs and expansion of the knowledge base in the province.
- Innovative businesses attracted to Alberta.

strategy 6:
purchasing and partnering for maximum value

Government's corporate purchasing power and the introduction of innovative partnering practices will return maximum value to government and contribute to economic and business development growth in Alberta.

While a variety of models for use of the private sector are in place across government, there are very few practices in place to facilitate a corporate view of contract, service and value relationships. To capitalize on private sector capabilities, a renewed emphasis must be placed on developing corporate practices of purchasing and partnering that will secure maximum value and lower business risk for government.

Specific corporate purchasing and partnering strategies are as follows:

- A "buy, not build" philosophy for ITM will be adopted that will ensure timely and cost effective solutions.
- Government will use private sector services and enter into strategic alliances with other jurisdictions and levels of government to develop and support ITM solutions where it is cost effective and provides added value.
- Value-based strategic relationships with private sector firms will be established to advance government's use of emerging technologies (e.g., electronic service delivery).
- Performance-based service relationships with private sector firms will be established to support traditional technology use in government (e.g., desktop / server support, networks, mainframe data centres).
- Innovative procurement practices will be established to ensure compliance with the Agreement on Internal Trade and allow decisions to be made on the basis of value, price and contribution to economic and business growth in Alberta.
- Corporate standards will be established for contractual terms and conditions. These will be considered in the development of all major private sector agreements.

primary linkage to business drivers

- ☐ - Customer Focus
- ☑ - Business Conducted in New and Better Ways
- ☑ - Investments Based on Sound Business Cases
- ☐ - Improved Management and Use of Information
- ☑ - Economic Development

- Fixed price and shared risk / shared reward concepts of contracting, linked to results, will be pursued to the greatest extent possible.
- A corporate policy on intellectual property will be developed.

outcomes

To Government:

- Use of private sector technology design, development and delivery expertise and capabilities will be maximized.
- Economies of scale will be achieved in government ITM purchasing.
- Business risk of applying emerging technologies will be reduced.
- Timeframes for implementation will be reduced.
- Contracting methods (e.g., fixed price, shared risk / reward) will motivate partners to strive for desired results / outcomes.

To Albertans:

- Increased job opportunities in the technology and communications sectors.
- Increased integration of services and information through partnering with other jurisdictions.

To the Business Community:

- Alberta will be viewed as an excellent place to do business.
- Opportunities for business participation in government ITM will expand.

To the Economy:

- The Alberta government will acquire, use and showcase emerging technology solutions that will contribute to growth of the technology and communications sector in Alberta.
- Increased opportunities will lead to increased jobs and expansion of the knowledge base in the province.

strategy 7:
take advantage of the strategic value of information

Information and knowledge are viewed as strategic assets which are to be carefully developed, managed and shared in support of business decisions.

The success of government initiatives will not only be based on excellence in the delivery of services and operational efficiency, but also on leveraging corporate knowledge and intellectual capital.

As government addresses new and innovative ways of delivering services, there will be an increased focus on customer relationship management techniques, as well as the ability to capture and share knowledge. This includes the ability to share, reuse, and be innovative using that knowledge to add value to the business of government.

Specific strategies related to the strategic value of information are as follows:

- A comprehensive framework for information and knowledge management will be established that addresses good practice principles, security requirements, roles and responsibilities, data standards, information sharing, and ministries' responsibilities under the Freedom of Information and Protection of Privacy Act and the Health Information Act.

  This framework will assist ministries in achieving the goals of enhancing the capability of information systems to share data resources, while avoiding future costs associated with 'stove pipe' applications and services.

- Cross-ministry coordination teams will be established to identify information that is or could be shared across ministry boundaries.

primary linkage to business drivers

- ☑ - Customer Focus
- ☑ - Business Conducted in New and Better Ways
- ☐ - Investments Based on Sound Business Cases
- ☑ - Improved Management and Use of Information
- ☑ - Economic Development

- The provincial Intranet, with single point access to services and information pertinent to provincial employees, will be expanded and deployed across government. Provincial employees will be able to access services and information, including on-line access to directories, policies and procedures, training opportunities, and postings of current news and information.
- The tools and the use of tools in planning and evaluating government services will be expanded.
- The investment in existing systems, such as IMAGIS, will be maximized.
- Staff development and training will be established to maximize the value of all information and management systems.

outcomes

To Government:

- Potential to substantially improve government business processes due to:
  - The development of "corporate culture" methods of thinking, planning and implementation. To replace "silo" approaches.
  - Improved decision-making.
  - More effective use of resources.
  - Improved processes.
- The more precise levels of security provided by information management practices will allow government stakeholders appropriate access to the information they need.
- Potential for improved relationships with stakeholders and other jurisdictions.
- A culture shift to sharing knowledge / information should create a marked improvement in employee output and morale. People will feel more informed and able to act with higher levels of cross-organizational trust.

To Albertans:

- The information and knowledge needed by Albertans will be more readily available.
- Albertans will be able to make more informed choices.
- Increased sense of an accessible and responsive government.

To the Business Community:

- Alberta's recognition as a leading knowledge and information management province.
- Economic stimulation resulting from the development of infrastructure and knowledge and information management applications

To the Economy:

- The adoption of knowledge, information and application management practices will contribute to Alberta's economic growth in the global economy.

strategy 8:
invest in corporate ITM infrastructure

Investment in corporate infrastructure will support electronic-based service delivery to Albertans. It will lead to consistency, interoperability, economy, and improved communications across all levels of government, with business, and with extended stakeholder groups, such as the health and education sectors.

Shared infrastructure exists today, but most components were developed for single ministries or programs. As a result, current infrastructures do not enable integrated service delivery across government. The ITM infrastructure needs to be enhanced to accommodate growing business needs and to establish a framework for managing and funding a government-wide infrastructure in coming years.

Specific corporate infrastructure strategies are as follows:

- The government-wide ITM infrastructure will be strengthened to specify appropriate architectures and standards for the province and to support ministries' objectives and movement toward an integrated government. This includes developing a province-wide network plan (in partnership with the private sector), policies and direction for information security, and standards for information management, electronic services, security and province-wide applications.
- Government networking will be improved and expanded upon to enable full-time, high speed networking to government offices across the province.
- The technological (high-speed networking) and physical infrastructure will be expanded to allow electronic access to government information, services and programs.
- Integrated, government-wide ITM guidelines, best practices, tools, training, and proposed policies in areas of privacy, critical infrastructure, and security will be established.
- Directories of government information sources and government staff and organizations will be constructed to support the effective location of information and services.
- A central knowledge base to support the evaluation of emerging technologies will be established.
- Awareness of security, privacy and critical infrastructure issues will be expanded.

primary linkage to business drivers

- ☑ - Customer Focus
- ☑ - Business Conducted in New and Better Ways
- ☑ - Investments Based on Sound Business Cases
- ☑ - Improved Management and Use of Information
- ☑ - Economic Development

- A review process will be developed to ensure secure, stable, robust, manageable, high performance connectivity between provincial government employees, customers, information technology resources and needed information.
- Technology life cycle management "best practice" concepts will be incorporated throughout the corporate infrastructure.

outcomes

To Government:

- Optimized use of all government ITM assets.
- Ministries can more easily access and share information and collaborate through a common, secure network.
- Costs of government are reduced through sharing a common information infrastructure.
- Government policy development is strengthened through strong cross-ministry contact.
- Enhanced cost effectiveness of ITM investments by standardizing and leveraging technologies.
- Reduced cost for ITM design, construction, purchase, deployment and management.
- Government information is more consistent.

To Albertans:

- Improved service availability and reduced costs in regional and rural areas.
- Greater equity of access.
- High confidence in government processes and data.
- Security and privacy framework for electronic service delivery in place.
- Infrastructure that provides a foundation for knowledge creation, prosperity and quality of life.

To the Business Community:

- Alberta will be viewed as an excellent place to do business.
- Increased services and distribution channels.
- Opportunities for business participation in government ITM will expand.
- Improved access to government services and information, and opportunities to sell services.
- Minimize barriers to business innovation and maximize contribution to business growth.

To the Economy:

- Innovative application of new technologies that position Alberta as a knowledge-based networked economy.
- Increased growth in productivity and competitiveness in the global markets.
- Innovative business attracted to Alberta.

making it happen

Implementing this corporate ITM strategy will be a top priority for the Government of Alberta. Leadership will be provided by the CIO's Office with full participation of the CIO's Council, the CTO's Office and the Alberta Corporate Service Centre. While it may take two to three years to see the full benefits (e.g., province-wide communications infrastructure implementation), the emphasis of the move-forward plan will be on getting things done 'now.' Work on key strategies have begun and aggressive targets for results have been established to create a revitalized framework for ITM across government.

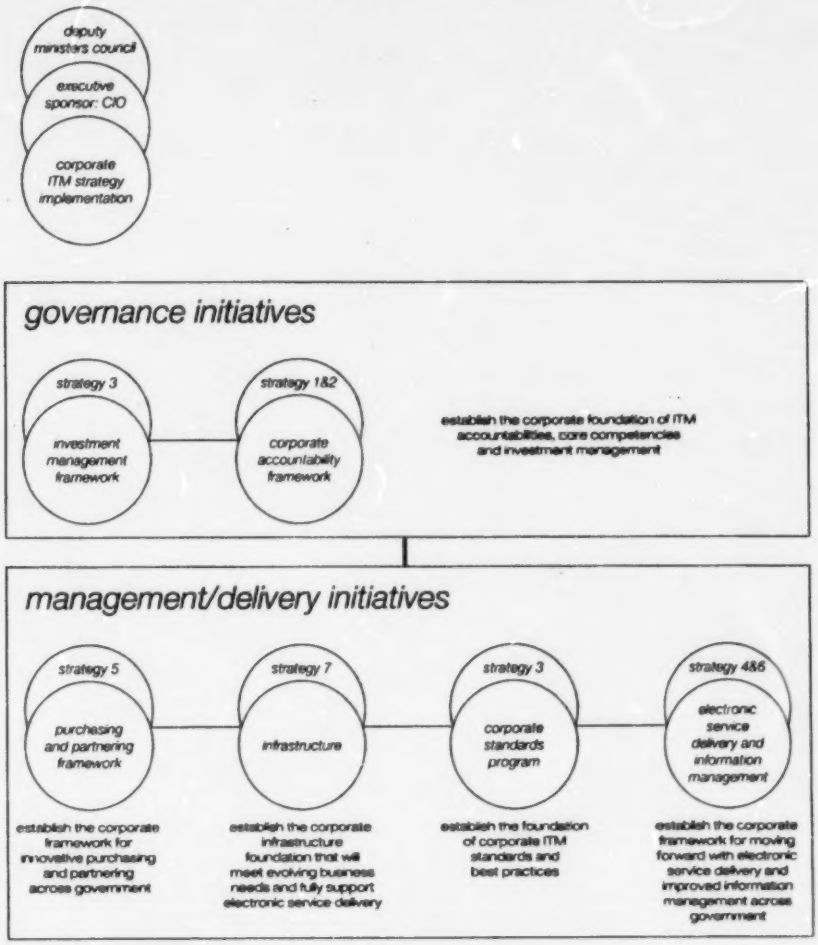
strategies must be addressed collectively

While action on some strategies can be taken in isolation, it is important to address the strategies corporately and collectively to achieve full benefits. This is the first step towards implementing a corporate approach to ITM that ensures effective linkages across ministries.

action under the direction of the CIO

The CIO, acting in the capacity of Executive Sponsor, will provide leadership through a series of project initiatives that will be pursued concurrently. These initiatives will address the strategies in this plan and take into account specific actions presented in Appendix B. An overview of the initiatives that will be undertaken is as follows:

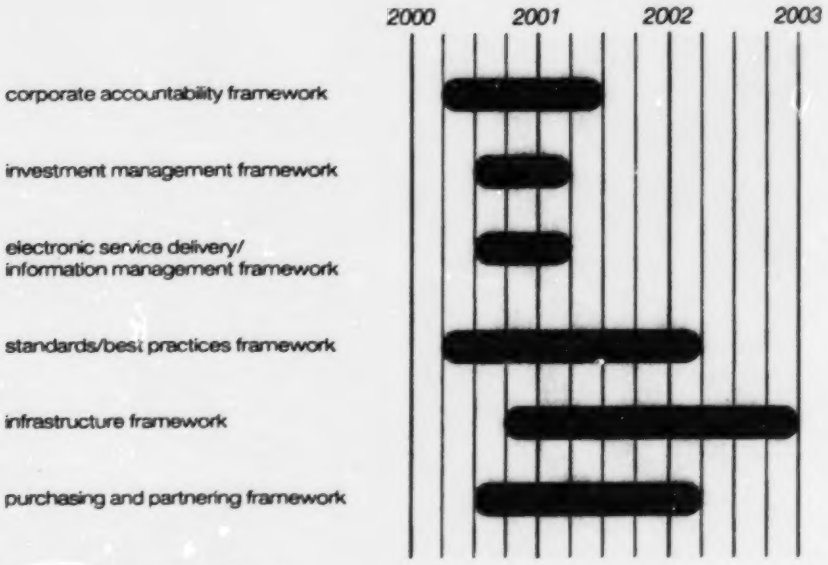
overview of approach to corporate ITM strategy implementation


deputy ministers council
executive sponsor: CIO
corporate ITM strategy implementation
governance initiatives
strategy 3
investment management framework
strategy 1&2
corporate accountability framework
establish the corporate foundation of ITM accountabilities, core competencies and investment management
management/delivery initiatives
strategy 5
purchasing and partnering framework
establish the corporate framework for innovative purchasing and partnering across government
strategy 7
infrastructure
establish the corporate infrastructure foundation that will meet evolving business needs and fully support electronic service delivery
strategy 3
corporate standards program
establish the foundation of corporate ITM standards and best practices
strategy 4&6
electronic service delivery and information management
establish the corporate framework for moving forward with electronic service delivery and improved information management across government

time frame for implementation

The broad time frames for strategy implementation take into account current plans for implementation of the Alberta Corporate Service Centre and enhancement of the provincial network infrastructure. The plan, however, places a high priority on corporate framework development activity in the current year and implementation in late 2000. This will provide a solid foundation for major change in service delivery and improved investment management in coming years. The summary schedule for strategy implementation is as follows:

time frame for implementation



target outcomes

The resulting outcomes of the move-forward plan will be as follows:

- **By late 2000**, government will have a framework in place to direct the corporate implementation of electronic service delivery, electronic commerce and enhanced information sharing across ministries.
- **By late 2000**, government will have a clearly defined corporate accountability framework, along with an investment framework to deal effectively with corporate priority-setting and risk management.
- **By early 2002**, government will have implemented a solid framework of industry-based ITM standards, best practices and innovative purchasing and partnering practices
- **By 2003**, government will be connected to a high speed province-wide network infrastructure and the province will be conducting a significant amount of business electronically.
- **By 2003**, government's investment in emerging technologies and infrastructure will enhance the ability of Alberta to compete in the global marketplace and be viewed as a leader in the knowledge-based economy.

critical success factors

Several factors will be critical to the success of the corporate ITM strategies and achieving maximum value for government and Albertans in coming years. The primary contributors to success are as follows:

Willingness to Invest

Government must acknowledge the value ITM will bring to the achievement of corporate and ministry-based business goals and support investment in key components of corporate infrastructure and emerging technologies.

Leadership by the Corporate CIO

The CIO must assume accountability for implementing the corporate strategic direction and demonstrate leadership in areas of governance and maintaining ministry commitment.

Executive Level Support

The Deputy Ministers must commit to the corporate strategic direction.

Commitment and Participation of all Ministries

The CIOs of each ministry must commit to the corporate strategic direction and cooperate with other ministries and the corporate CIO to achieve the desired outcomes. Through this cooperative approach, the ministry CIOs will be accountable for their ministry's compliance with the corporate ITM plan.

Private Sector Contribution

The private sector must demonstrate a commitment to embrace government's strategic direction and contribute skills, experience and investment to achieve success.

Business and ITM Moving Forward Together

As noted previously, emerging technologies provide the opportunity to change the way business is conducted and services are delivered to Albertans. It is imperative, therefore, that business architects 'think outside the box' and focus on the 'new' in new and better ways to provide a re-engineered business framework for future ITM investment. ITM will then be an enabler and contributor to the desired level of business change and outcomes.

Achievement of these factors, coupled with effective management and execution of the action plan, will strengthen the management of ITM across government and contribute to government's goal of 'Strengthening the Alberta Advantage.'

appendix a

Results of Gap Analysis

appendix a

Results of Gap Analysis

Components	Identified Gaps
Governance, Management and Delivery • Corporate and Ministry Roles, Responsibilities and Accountabilities • Planning and Priority-Setting • Policies, Legislation and Regulations • Common Opportunities Identification • Corporate Standards Development • Procurement • Sourcing/Outsourcing/Partnering • Performance Management • Shared Services • Corporate Standards Management • Skills and Core Competencies	**Gaps:** • Need to develop and implement corporate and ministry roles and responsibilities, along with related accountabilities. • Planning tools, including 3 year business plans from the CIO's office, ITM priority setting frameworks, and planning templates are required. • Need for corporate identification of common opportunities and funding of corporate solutions. • Corporate standards are required. • Modification of traditional procurement / contracting methods is required. New guidelines are needed, along with clear corporate strategy on such methods. • Corporate expertise, guidelines and standards in regard to procurement, outsourcing and partnering. • A corporate strategy for ITM performance management is required. • Corporate policies and standards for shared services are required. • A corporate standards framework is required. • Skills and core competencies require updating **Gap Summary** *There is a need at the corporate level for a framework dealing with all aspects of ITM governance, management and delivery.* **Primary Business Drivers** • New / better ways • Sound business cases

Components	Identified Gaps
Investment Management • Investment Management • Business Cases • Risk Management • Performance Management	**Gaps:** • There is no formal enterprise-wide approach to managing the existing and proposed ITM investment portfolio on a coordinated corporate basis. There is no clear accountability for ITM performance at the corporate level. Corporate roles and responsibilities need to be defined and a corporate ITM business plan needs to be developed. • There is a need to better reflect corporate needs in the development of business cases. • Business case selection decisions are not evaluated on a collective basis to optimize investment to best meet the overall business needs of the government. A corporate process is required to evaluate proposals in conjunction with other existing and proposed ITM investments. • There are no " Best Practices " in place at the corporate level for risk and performance management. • A corporate " Risk Assessment Model " is required. • There is a corporate need to ensure and report on an investments continuing alignment with the government's overall business strategy, clarity of expression for anticipated investment outcomes, and the presence of proper metrics to verify successful performance. • There is no enterprise-wide approach for monitoring, reporting, and reviewing results to ensure investments are achieving strategic and business objectives on a sustainable basis. • There is a need to ensure that outcomes are aligned with current and changing corporate goals and objectives, and to ensure that services to Albertans and Alberta businesses are properly integrated. • There is a need for staff skills and experience in all aspects of the value/investment management function, including industry level knowledge as to emerging technical and business trends, opportunities for system and program delivery convergence, and improved models for partnering and utilization of private sector capabilities. **Gap Summary** *There is a need to implement a framework for value/investment at the corporate level to ensure that the ITM portfolio is aligned with and supports overall government goals and objectives, and that the collective risk and performance of the portfolio is properly managed on a continuous basis.* **Primary Business Drivers** • Economic development • Sound business cases • New / better ways

Components	Identified Gaps
Standards Management • Planning • Contract Management • Project Management • Quality Assurance • Hardware/Software/Network	**Gaps:** • No common understanding and/or language to facilitate the identification of the need for, and creation of, government-wide standards. • Lack of basic principles on which to base standards. • No governance authority and related roles and responsibilities. A clear accountability model is required. • Distributed / fragmented approach to research and development. • No enterprise-wide architecture framework. • Need to coordinate, link and align existing decentralized platforms. • Upgrade and replacement standards required. • There is a variety of different access and entry points to government information. • Need to focus ITM towards information exchange with stakeholders, businesses, and citizens. • Need for increased access to various networks. • There is a need for a supported process to standardize planning templates and profile information that can be stored, shared, and recorded electronically. • Need for an electronic interactive guide for all contract management and business system development. • There is a need for strong leadership at the corporate level. **Gap Summary** *A standard framework is required at the corporate level. There is a need for strong leadership, based on clear roles and responsibilities, to develop, maintain and realize the benefits from such a framework.* **Primary Business Drivers** • New / better ways • Customer focus • Sound business cases

Components	Identified Gaps
Infrastructure Management • Technical Architecture • Business Continuity • Communication Networks • Technology Life-cycle.	**Gaps:** • There is need for a comprehensive technology architecture, kept updated on an ongoing basis. • Require corporate policies and standards in respect to business continuity, disaster recovery and security. • Require corporate ITM strategies, standards and related investments and procurement to take advantage of converging technologies, to provide province-wide high speed connectivity, and to ensure a consistent approach to the provision of Local Area Network (LAN) services across ministries. **Gap Summary** *There is a need for a corporate approach to ITM architecture, investment strategies, policies and standards, and the procurement and implementation of key government-wide elements.* **Primary Business Drivers** • Sound business cases • New / better ways • Economic development

Components	Identified Gaps
Information, Knowledge, & Application Management • Culture/People • Organization/Structure/Process • Systems/Technology/Infrastructure	**Gaps:** • Information is poorly shared. • Require improved management tools. • Implied and tacit knowledge is poorly captured and managed. • Location of expertise is generally not known. • Access to and use of desktop technology should be improved. • Need for corporate approach to Knowledge Management (KM), Information Management (IM), Application Management (AM). • Need to move from hierarchical to matrix management and remove silo's. • Roles of CIO/CIOs and related groups needs to be defined. • Service delivery in a geographically diverse province is not uniform. • Need to integrate common business, programs, and services across ministries. This would include reengineering to avoid duplication of information capturing, storage, and maintenance. • Need for some application management at the corporate level. • Need for new ITM investment, taking advantage of converging technologies. • Require new standards, and a process to keep them current. • Need to fully utilize internet/intranet capabilities. • Need to deal with unresolved issues such as FOIP, security, archival retention of electronic records, legislative and legal issues. **Gap Summary** *The management and use of information and knowledge across government requires significant improvement. A new organizational approach, supported by corporate standards and a re-engineering of major business and program delivery functions is necessary.* **Primary Business Drivers** • New / better ways • Improved management / use of information

Components	Identified Gaps
Electronic Service Delivery • Standards • Security and privacy • Technical infrastructure • Legislation and governance • Relationships with stakeholders • Communications • E-business for government • Organization • Human resource development	**Gaps:** • Most ITM procurement decisions are ministry-based. • There is a lack of government-wide data standards and standards-based technology infrastructure. • The application of ESD requires more common and consistent business processes. • Baseline standards for security policies and practices have been established at the department level, with many designed for paper-based processes and transactions. This will require further work at the corporate level. • The use of ESD requires the resolution of issues such as enforceability and legality of electronic transactions, integrity and security of the technological infrastructure, intellectual property, and protection of trademarks and logos. • Differences in network capabilities vary dramatically throughout the province, making the use of high-bandwidth ESD initiatives difficult and in many areas impossible. The governments internal telecommunications network and the network available to the public must be addressed. • Inconsistent legislation between ministries and other levels of government is a barrier to establishing effective ESD relationships. Legislation regarding consumer protection for on-line commerce is incomplete. • There is a need to communicate and market the use of ESD on a coordinated government-wide basis. • Further growth in e-business is hampered due to limitations including, limited interaction with clients, restricted ability to handle financial transactions, lack of interface with Alberta's financial system, no overall approach to internet purchasing, and the past development of fragmented e-business systems. • Lack of a corporate approach has resulted in a number of individual ministry initiatives, with no cross-government critical mass being achieved. • There is a need for knowledge and understanding of ESD within the public service. **Gap Summary** *A corporate approach to ESD is required to deal with legal and legislative issues, develop and implement standards, develop required infrastructure and create a broader critical mass of related service applications.* **Primary Business Drivers** • Linkages to Business Drivers • Customer focus • New / better ways • Economic development • Sound business cases

appendix b

Action Items

appendix b

Action Items

During the gap analysis, a number of key action items were identified. These have been related specifically to the strategies and will be considered in the approach to strategy implementation to be undertaken by the CIO.

strategy 1: strengthening the governance and accountability framework

action items
• Develop a corporate ITM business plan with clear statements of strategic and operational directions and priorities
• Develop comprehensive corporate 3 year ITM plan
• Establish and action ITM accountability frameworks and processes
• Corporate accountabilities
• Standards / best practices accountabilities / processes
• Common opportunities accountabilities / processes
• Shared services accountabilities / processes
• Assess legislative impact of electronic service delivery / One-Window Access
• Establish corporate measures for ITM performance monitoring
• Establish training program for governance / management responsibilities

strategy 2: investing in our people

action items
• Establish centres of expertise
• Establish partnering strategies for developing and delivering training programs
• Establish best practices and related training programs
• Provide consulting and training services across government

strategy 3: achieving results through effective management of investments

action items
• Finalize and implement the corporate ITM Investment Management framework
• Develop and implement corporate policies, standards and best practices for
• Investment management
• Business cases
• Risk management
• Performance management
• Inventory and evaluate major ITM investments and establish a process for updating and communicating status
• Develop and implement a "Risk Assessment Model"
• Create a Centre of Expertise for Investment Management

strategy 4: adopting standards and best practices across government

action items
• Establish corporate ITM infrastructure standards and standards management program
• Implement corporate ITM infrastructure standards
• Establish and implement a corporate technology life cycle management program
• Establish a corporate standards framework for electronic service delivery implementation
• Establish and implement a corporate program of best practices (and training)

strategy 5: expanding access to information and services

action items
• Establish a governance framework for electronic service delivery
• Establish legal and regulatory framework
• Implement a high-speed, high-bandwidth government service and information network
• Development communication and training plans
• Develop business architecture for electronic service delivery

strategy 6: purchasing and partnering for maximum value

action items
• Review and restrike government outsourcing contracts
• Establish corporate partnering agreements for electronic service delivery implementation across government
• Develop and apply standard contractual terms and conditions
• Re-establish procurement and contracting practices

strategy 7: taking advantage of the strategic value of information

action items
• Establish information management framework
• Develop core data standards
• Develop provincial intranet
• Evaluate data mining tools
• Pilot ITM knowledge warehouse
• Develop training and communications plan

strategy 8: investing in corporate ITM infrastructure

action items
• Develop a government-wide ITM infrastructure
• Expand the technological and physical infrastructure
• Develop and coordinate common data definitions
• Promote awareness of security, privacy and critical infrastructure issues
• Build directories of government information resources
• Implement ITM knowledge warehouse